A BIT ABOUT SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

SSRIs are the recommended first-line pharmacological treatment for moderate-severe depression and anxiety disorders. SSRIs are not generally recommended for mild-moderate cases of depression and anxiety where psychological treatments are more appropriate. SSRIs act primarily on the serotonin system and act to block the serotonin transporter, which is responsible for removing serotonin from the synapse, thereby increasing the availability of serotonin in the brain.

SSRIs do not relieve symptoms of depression or anxiety straight away; some symptomatic improvement generally occurs within 1-2 weeks (if the antidepressant is working), but it can take about 4 weeks for their full effects to emerge. The reasons for this are not particularly well understood, although adaptive changes within the serotonin system likely play a role (such as decreases in the number or sensitivity of certain serotonin receptors). New neuronal growth (neurogenesis) may be important for the development of the antidepressant effect.

While the serotonergic actions of SSRIs are important in their therapeutic effects, the theory that depression is caused by a chemical imbalance in serotonin is not well supported by the science. The causes of depression and anxiety vary from person to person, and there are many contributing factors. A holistic approach to the treatment of depression and anxiety is therefore important.

SOME OF THE SIDE EFFECTS

Side effects include gastrointestinal discomfort, insomnia and/or drowsiness, tremor, dizziness, headache and sweating. Increased anxiety or agitation may occur, particularly early in the treatment period. Patients should be monitored over the first month of treatment for worsening depression, treatment-emergent suicidal ideation/behavior (particularly in patients under 25), or conversion to hypomania/mania. Sexual dysfunction and emotional blunting are also a common and under-reported side effects of SSRIs.

SSRI-discontinuation syndrome can occur if the antidepressant is stopped too rapidly. Symptoms include flu-like symptoms, nausea, dizziness, sweating, ‘brain shocks’ and vivid dreams. Affective symptoms such as anxiety, agitation, irritability and crying are also common. These can be mistaken for a return of the original illness. Certain SSRIs are more likely to cause discontinuation syndrome: paroxetine is more problematic due to its very short half-life and fluoxetine, with its long half-life, is least likely to produce these symptoms.
**OPIOIDS & SSRIs**

**HOW OPIOIDS WORK**

Some opioids are compounds extracted from poppies, whereas others (e.g., fentanyl or methadone) are synthetic. Opioids depress the central nervous system, slowing down messages from the brain to the body. They bind to opioid receptors in the brain and spinal cord – the areas that deliver pain messages, thereby offering pain relief. Opioids can slow breathing, lower blood pressure and pulse, cause an irregular heartbeat and lower body temperature.

Tolerance to opioids can develop rapidly. Over time, they can modify and slow down brain function.

The specific ingredients in street heroin are unknown and this presents an additional risk - it depends on who manufactured it and where. This obviously makes it difficult to predict the types of interactions it may have with other drugs or medications.

**SOME FUN FACTS ABOUT OPIOIDS**

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**OPIOIDS & SSRIs**

This resource provides general advice regarding some of the potential interactions between opioids and SSRIs. Opioids include prescription drugs such as fentanyl or tramadol, as well as illicit drugs such as heroin. It is important to note there may be additional or different interactions depending on genetic factors, the amount, type and purity of the opioids being consumed or if your patient is taking other types of drugs. People using opioids should be advised they can access take home naloxone, which can be used to reverse the effects of opioid overdose.

Some SSRIs, particularly fluvoxamine, can decrease the metabolism of buprenorphine and methadone, increasing blood concentrations.

**SSRIs & OTHER PRESCRIPTION DRUGS**

SSRIs can interact with other prescription drugs that increase the level of serotonin in the brain, which can lead to serotonin toxicity (or serotonin syndrome). This potentially fatal condition produces a variety of symptoms, including mental state changes (confusion, hypomania, agitation), autonomic effects (hyperthermia, sweating, tachycardia, fever) and neuromuscular symptoms (clonus, hyperreflexia). Caution should be used when combining SSRIs with other serotonergic drugs. These include other antidepressants (e.g., MAOIs, TCAs), certain opioids (tramadol, fentanyl), dapoxetine and St. John’s Wort.

There is an association between SSRIs and gastrointestinal bleeding. This effect may be potentiated through the use of aspirin and NSAIDs in combination with SSRI.